STATE FOREST LAND
ENVIRONMENTAL CHECKLIST

Purpose of Checklist:

The State Environmental Policy Act (SEPA), chapter 43.21C RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the agency identify impacts from your proposal (and to reduce or avoid impacts from the proposal, if it can be done) and to help the agency decided whether an EIS is required.

Instructions for Applicants:

This environmental checklist asks you to describe some basic information about your proposal. Governmental agencies use this checklist to determine whether the environmental impacts of your proposal are significant, requiring preparation of an EIS. Answer the questions briefly, with the most precise information known, or give the best description you can. *Questions in italics are supplemental to Ecology's standard environmental checklist. They have been added by the DNR to assist in the review of state forest land proposals. Adjacency and landscape/ watershed-administrative-unit (WAU) maps for this proposal are available on the DNR internet website at http://www.dnr.wa.gov under "SEPA Center." These maps may also be reviewed at the DNR regional office responsible for the proposal. This checklist is to be used for SEPA evaluation of state forest land activities.*

You must answer each question accurately and carefully, to the best of your knowledge. In most cases, you should be able to answer the questions from your own observations or project plans without the need to hire experts. If you really do not know the answer, or if a question does not apply to your proposal, write "do not know" or "does not apply." Complete answers to the questions now may avoid unnecessary delays later. *All of the questions are intended to address the complete proposal as described by your response to question A-11. The proposal acres in question A-11 may cover a larger area than the forest practice application acres, or the actual timber sale acres.*

Some questions ask about governmental regulations, such as zoning, shoreline, and landmark designations. Answer these questions if you can. If you have problems, the governmental agencies can assist you.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Use of checklist for nonproject proposals:

Complete this checklist for nonproject proposals, even though questions may be answered " does not apply." IN ADDITION, complete the SUPPLEMENTAL SHEET FOR NON PROJECT ACTIONS (part D).

For nonproject actions, the references in the checklist to the words "project," "applicant," and "property or site" should be read as "proposal," "proposer" and "affected geographic area," respectively.

A. BACKGROUND

1. Name of proposed project, if applicable:

   Timber Sale Name: **Walkin' Timber Sale** *Agreement #:* **30-077866**

2. Name of applicant: **Department of Natural Resources**

3. Address and phone number of applicant and contact person:
   Northwest Region
   919 North Township Street
   Sedro-Woolley, WA 98284
   Contact Person: **Candace Johnson**
   Telephone: **(360) 856-3500**

4. Date checklist prepared: **March 1, 2006**

5. Agency requesting checklist: **Department of Natural Resources**

6. Proposed timing or schedule (including phasing, if applicable):

   a. *Auction Date:* **November 13, 2006**
   b. *Planned contract end date (but may be extended):* **September 30, 2008**
   c. *Phasing:* **N/A**

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

   Timber Sale

   a. *Site preparation:* **Logging slash generated from this proposal will be piled and possibly burned where necessary to allow adequate planting spots upon completion of harvest. To be surveyed following harvest to assess need for chemical application.**

   b. *Regeneration Method:* **Hand plant Douglas-fir and western redcedar at approximately 360 stems/acre, tentatively scheduled for February 2008.**

   c. *Vegetation Management:* **To be surveyed 3-5 years following planting to assess need for hand cutting or chemical treatment.**

   d. *Thinning:* **To be assessed 12-15 years following planting to verify need for PCT.**

   Roads: **Roads remaining active including the N-1000, N-1200, N-1300, Spur A, N-1400, S-1000, and S-1100 will provide access for future land management activities and will have routine annual maintenance, which may include ditch and culvert cleanout and road grading as needed, complying with the approved RMAP 2800010L.**

Rock Pits and/or Sale: **The S-1100 Pit and the N-1000 Phyllite Pit will continue to be used for future timber sale road construction and road maintenance activities.**

Other: **None.**

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

☐ *303 (d) – listed water body in WAU:* ☐ *temp* ☐ *sediment* ☐ *completed TMDL (total maximum daily load):* **none listed, see http://www.ecy.wa.gov/programs/wq/wqhome.html , report also available at the Northwest Region Office in Sedro-Woolley.**
☐ *Landscape plan:*
☒ *Watershed analysis:* **Final Hutchinson Creek Watershed Analysis, May 19, 1998.**
☐ *Interdisciplinary team (ID Team) report:*
☒ *Road design plan:* **Available at NW Region Office.**
☐ *Wildlife report:*
☐ *Geotechnical report:*
☐ *Other specialist report(s):*
☐ *Memorandum of understanding (sportsmen's groups, neighborhood associations, tribes, etc.):*
☐ *Rock pit plan:*
☒ *Other:* **State Soil Survey, dated 1992; Forest Resource Plan and Environmental Impact Statement, dated 1992; Final Habitat Conservation Plan and Environmental Impact Statement, dated 1997, available at NW Region Office.**

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain. **No.**

10. List any government approvals or permits that will be needed for your proposal, if known.

☐ *HPA* ☒ *Burning permit* ☐ *Shoreline permit* ☐ *Incidental take permit* ☒ *FPA #* _____ ☐ *Other:*

11. Give brief, complete description of our proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include specific information on project description.)

a. *Complete proposal description:*
Net Harvest Area: 52.5 acres (Harvest unit 51.7 ac, 0.8 acres of Right-of-Way)
Estimated Harvest Volume: 2,780 mbf

The proposal area considered for this harvest activity is on approximately 65 acres, located 4 miles from Acme, WA. The net harvest area was determined using laser and compass hand traversing. In consideration of factors such as existing harvested stands, topographic breaks, removing 3.2 acres for green tree clumps, and protecting 7.8 acres with RMZ's this proposal was reduced to a net 52.5 acre harvest area.

b. *Timber stand description pre-harvest (include major timber species and origin date), type of harvest, overall unit objectives.*
Origin date of the stand is approximately 1936. The stand is predominantly Douglas-fir, western hemlock and red-cedar, with a stand composition of 82% DF, 2% RC, 10% WH, & 6% RA. The proposal stand is with a typical DBH range from 20-28 inches and stand height is approximately 110-125 feet. Understory is huckleberry, salmonberry, and fern.

This proposal involves a single regeneration harvest unit and Right-of-Way removal that will generate revenue for the Forest Board Transfer Trust (01); minimize soil and water quality impacts; provide access for forest management activities; retain and enhance future long- and short-term forest structural diversity; protect habitats and functions of typed waters; and meet or exceed requirements of the HCP, Forest Resource Plan, and Forest Practice Rules.

c. *Road activity summary. See also forest practice application (FPA) for maps and more details.*

Type of Activity	How Many	Length (feet) (Estimated)	Acres (Estimated)	Fish Barrier Removals (#)
Required Construction		1,424	.65	0
Reconstruction		0		0
Optional (Temporary) Construction		3,376	1.55	0
Bridge Install/Replace	0			0
Culvert Install/Replace (fish)	0			0
Culvert Install/Replace (no fish)	9			

12. Location of proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist. *(See timber sale map. See also color landscape/WAU map on the DNR website http://www.dnr.wa.gov under "SEPA Center.")*

a. Legal description: **Sale area and rock sources are located in portions of Sections 27 and 33 of Township 38 North, Range 5 East, and Section 1 of Township 39 North, Range 5 East, W.M.**

b. *Distance and direction from nearest town (include road names):* **From the town of Acme on Highway 9, travel 1.8 miles east on Mosquito Lake Road. Turn north (left) on the DNR Van Zandt N-1000 mainline road and travel 3.4 miles to the N-1400 Road. Turn east (right) and travel 0.8 miles to the end of the road. Unit is located approximately 500 feet to the southeast.**

c. *Identify the watershed administrative unit (WAU), the WAU Sub-basin(s), and acres. (See also landscape/WAU map on DNR website http://www.dnr.wa.gov under " SEPA Center.")*

WAU Name	WAU Acres	Proposal Acres
Hutchinson Creek	**14,031**	**52.5**
Johnson sub-basin	**1,922**	**52.5**

13. *Discuss any known future activities not associated with this proposal that may result in a cumulative change in the environment when combined with the past and current proposal(s). (See digital ortho-photos for WAU and adjacency maps on DNR website http://www.dnr.wa.gov under "SEPA Center" for a broader landscape perspective.)*

The following information is derived from local knowledge, Region WAU maps, DNR Planning and Tracking database, and Region WAU SEPA reports. This proposal is located on the northeast portion of the Van Zandt Dike. Large private industrial landowners own and manage the majority of adjacent forested land within this WAU.

Name of WAU	Total Acres	DNR Managed Forested Acres	Private Managed Acres	Percent DNR Managed Forest land	Percent Private Managed land
Hutchinson Creek	14,031	6,133	7,898	44	56

Within the past 7 years in the Hutchinson Creek WAU, there have been 747 acres of regeneration harvest and 110 acres of uneven-aged harvest on DNR managed land. Private landowners have completed several regeneration harvests in accordance with the Forest Practices in the past 7 years, totaling approximately 1,300 acres. Private landowners have also completed 43 acres of uneven-aged harvest. Private landowners have used a rotation age of 40-50 years of age. Future activities on private land are unknown.

Environmental impacts due to harvest activities of past sales have been mitigated on a site-by-site basis according to the guidelines set out in the Forest Practice (F.P.) Rules. Environmental elements include impacts to the earth, surface and ground water, and wildlife habitat.

Earth: Boundary and road locations have been located in stable areas only. The combination of harvesting schedule and recommended yarding strategies will alleviate or minimize ground disturbance.

Surface and Ground Water: Contract language will prevent activities, or the use of equipment, that may pose high risk to soil compaction and will suspend operations during periods of wet weather reducing impact to water quality. To mitigate water quality issues and erosion, roads will be surfaced with rock and have adequate drainage structures to maintain natural drainage patterns. New road construction will be minimized and a portion will be abandoned after completion of logging. A 100-foot RMZ was left on the type 4 stream, and a 157-foot RMZ was left on the type 3 stream, both immediately adjacent to the sale area.

Wildlife: Seven percent of trees 12 inches and greater on site, including trees from the dominant crown class and largest diameter class will be left as wildlife and green trees. Clumped green trees are located throughout the sale area. Scattered green trees are larger diameter Douglas-fir. The site will be replanted within two planting seasons following harvest.

Planned land management activities in fiscal year 2008 within this WAU include road construction, RMAP activities, and silvicultural activities. These activities will continue to follow the Forest Practices Rules, Forest Resource Plan, Implementation Agreement, Incidental Take Permits, and the HCP. This will ensure that all aspects of the environment are adequately protected and preserved and serve to minimize the chance of adverse cumulative environmental impacts.

B. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site (check one):

☐Flat, ☒Rolling, ☐Hilly, ☐Steep Slopes, ☒Mountainous, ☐Other:

1) *General description of the WAU or sub-basin(s) (landforms, climate, elevations, and forest vegetation zone).* **The Hutchinson Creek WAU is mountainous, ranging in elevation from below 800 feet to over 3,000 feet. Bowman Mt. borders the north, east, and south. On the west, the WAU climbs the south tip of the Van Zandt Dike. Blue Mt. borders the southwest. Most of the WAU is forested and is located within the west Cascade hemlock zone. The major timber types are second growth conifer/hardwood (Douglas-fir, western redcedar, western hemlock and red alder). There are many Douglas-fir plantations throughout the WAU. Hutchinson Creek is the major water body found in the north central portion of the WAU. The climate is typical of the foothills of the western Cascades.**

2) *Identify any difference between the proposal location and the **general** description of the WAU or sub-basin(s).* **The proposal area contains many of the features listed above.**

b. What is the steepest slope on the site (approximate percent slope)? **Slopes up to 60% occur on approximately 10% of the sale area.**

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland. *Note: The following table is created from state soil survey data. It is a roll-up of general soils information for the soils found in the entire sale area. It is only one of several site assessment tools used in conjunction with actual site inspections for slope stability concerns or erosion potential. It can help indicate potential for shallow, rapid soil movement, but often does not represent deeper soil sub-strata. The actual soils conditions in the sale area may vary considerably based on land-form shapes, presence of erosive situations, and other factors. The state soil survey is a compilation of various surveys with different standards.*

State Soil Survey #	Soil Texture or Soil Complex Name	% Slope	Acres	Mass Wasting Potential	Erosion Potential
4787	GRAVELLY LOAM	5-30	49	INSIGNIFICANT	LOW
4791	MONTBORNE-RINKER-COMPLEX	30-60	3	MEDIUM	MEDIUM
7439	V.GRAVELLY SILT LOAM	30-65	1	MEDIUM	MEDIUM

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

1) *Surface indications:* **No evidence of recent or ancient slope failures were observed on the ground or on aerial photos within or adjacent to this proposal area.**

2) *Is there evidence of natural slope failures in the sub-basin(s)*
☐*No* ☒*Yes, type of failures (shallow vs. deep-seated) and failure site characteristics:* **Aerial photos and local knowledge indicate that deep-seated and shallow rapid slides have occurred on steeper slopes over 75%.**

3) *Are there slope failures in the sub-basin(s) associated with timber harvest activities or roads?*
☐*No* ☒*Yes, type of failures (shallow vs. deep-seated) and failure site characteristics:* **Shallow rapid slides have occurred on orphaned roads.**
Associated management activity **Failures are due to road construction standards that pre-date current Forest Practices. No failures are known to have occurred on roads constructed during the past two decades under more current Forest Practice rules. In Section 25, Township 38 North, Range 5 East, a debris torrent was triggered by a series of small shallow rapid slides due to redirected ditch water from a culvert installation on an existing road.**

4) *Is the proposed site similar to sites where slope failures have occurred previously in the sub-basin(s)?*
☒*No* ☐*Yes, describe similarities between the conditions and activities on these sites:* **The proposed site is not similar to sites where failures have occurred. Slopes are gentle and streams do not have incised channels.**

5) *Describe any slope stability protection measures (including sale boundary location, road, and harvest system decisions) incorporated into this proposal.* **On slopes exceeding 25%, yarding will be done by cable systems with lead end suspension to minimize ground disturbance. Shovel yarding and/or feller-buncher processing may occur where slopes are less than 25%. Ground-based yarding may be restricted between November 1 and March 31.**

e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.
Approx. acreage new roads: **2.2 acres** *Approx. acreage new landings:* **2.0 acres** *Fill source:* **On-site native materials and rock from the existing S-1100 Rockpit and the Phyllite Rockpit located at MP 3.55 of the N-1000 Road will be used for fill over culverts, road and landing construction.**

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe. **Erosion could result from road and landing construction during periods of heavy rainfall or as a result of yarding during periods of saturation. Additionally, erosion could result if ditches and culverts are not properly installed and maintained during and after the harvest operation. Road use during unfavorable weather conditions may contribute to an increased potential for surface erosion.**

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)? *Approximate percent of proposal in permanent road running surface (includes gravel roads):* **Less than 1% will remain forest road.**

h. Propose measures to reduce or control erosion, or other impacts to the earth, if any:
(Include protection measures for minimizing compaction or rutting.) **To control road related erosion, road pioneering will generally not extend more than 500 feet beyond completed construction, culverts will be installed concurrently with construction of the road subgrade, and culvert outlets will not terminate on unprotected soils. Roads will be crowned, ditched and cross-drained, surfaced with rock and constructed according to Forest Practice standards. Ditches will be excavated along roads to collect surface runoff, which will be discharged onto stable areas of the forest floor, or natural drainages through ditch outs and cross drain culverts. Exposed soils resulting from road construction will be revegetated or a protective cover applied. Harvested areas will be reforested with Douglas-fir and/or western red-cedar within two years of the expiration of the contract. The combination of harvesting schedule and recommended yarding strategies will alleviate or minimize erosion. Road construction and hauling will be restricted between November 1 and March 31st. Ground-based yarding, mechanized falling, road construction, and hauling of forest products may be restricted to the dry times of the year. Contract and road plan provisions restrict operations during periods of unfavorable weather during any time of the year.**

2. Air

a. What types of emissions to the air would result from the proposal (i.e., dust *from truck traffic, rock mining, crushing or hauling*, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known. **Minor amounts of equipment exhaust from trucks, crew vehicles, chain saws, and yarding equipment. Dust from vehicle traffic during extended periods of dry weather.**

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe. **No.**

c. Proposed measures to reduce or control emissions or other impacts to air, if any: **Slash burning if done, will be done with a burning permit, under smoke management guidelines.**

3. Water

a. Surface:

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into. *(See timber sale map and forest practice base maps.)***There is one type 4 stream along the northern boundary and one type 3 stream that follows the southern boundary. There are 3 type 5 streams along the eastern boundary. All the streams flow west to east through the sale area.**

a) *Downstream water bodies:* **All streams within the proposal area are potential tributaries, via surface or subsurface flow to Hutchinson Creek.**

b) *Complete the following riparian & wetland management zone table:*

Wetland, Stream, Lake, Pond, or Saltwater Name (if any)	Water Type	Number (how many?)	Avg RMZ/WMZ Width in Feet (per side for streams)
Unnamed Stream	5 (Ns)	3	N/A
Unnamed Stream	4 (Np)	1	100
Unnamed Stream	3 (F)	1	157

c) *List RMZ/WMZ protection measures including silvicultural prescriptions, road-related RMZ/WMZ protection measures, and wind buffers.* **The type 4 stream has a 100-foot no entry RMZ and the type 3 stream has a 157-foot no entry RMZ. The type 3 stream does not require a wind buffer since it is less than 5 feet wide at BFW.**

2) Will the project require any work over, in, or adjacent to (within 200 feet) to the described waters? If yes, please describe and attach available plans.
☐*No* ☒*Yes (See RMZ/WMZ table above and timber sale map.)*
Description (include culverts): **Trees will be felled to avoid streambank disturbance on typed streams. If ground-based yarding requires crossing type 5 streams, measures to protect the stream banks will be used at the crossing points. Logs will have lead end suspension during cable yarding. New road construction will cross 2 type 5 streams, where culverts will be installed. Roads along the haul route pass through existing RMZ's and WMZ's. Maintenance of these roads is the only scheduled activity.**

2) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.
There will be no wetland fill or dredged material.

4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known. *(Include diversions for fish-passage culvert installation.)*
☒*No* ☐*Yes, description:* **New road construction will cross 2 type 5 streams.**

5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.
☒*No* ☐*Yes, describe location:*

6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.
☒*No* ☐*Yes, type and volume:*

7) *Does the sub-basin contain soils or terrain susceptible to surface erosion and/or mass wasting? What is the potential for eroded material to enter surface water?*
Yes, there are steep slopes and incised channels in the WAU and Sub-Basin: However, due to seasonal flow of streams and seasonal operational period, it is unlikely that eroded material will enter surface waters. Information is from the Region GIS Data and aerial photos.

<u>High Erosion Potential:</u>

WAU: 10%
Johnson Sub-Basin: 1%

<u>High Mass Wasting Potential:</u>

WAU: 4%
Johnson Sub-Basin: 1%

8) *Is there evidence of changes to the channels in the WAU and sub-basin(s) due to surface erosion or mass wasting (accelerated aggradations, erosion, decrease in large organic debris (LOD), change in channel dimensions)?*
☐*No* ☒*Yes, describe changes and possible causes:* **There is evidence of mass wasting events that have altered stream channels within the WAU. These changes are related to historic mass wasting events described in the Hutchinson Creek Watershed Analysis. This information can also be found in aerial photos and in the Region GIS Data.**

9) *Could this proposal affect water quality based on the answers to the questions 1-8 above?*
☒*No* ☐*Yes, explain:* **There should be little effect to stream water quality. Yarding strategies, riparian buffers, road design, and leave tree strategies will minimize any potential deliverability to typed waters. Road construction, hauling, and ground-based harvesting operations may be restricted from November 1 to March 31, and are not permitted during unfavorable weather conditions at any time of the year, minimizing potential impacts from this proposal to water quality.**

10) *What are the approximate road miles per square mile in the WAU and sub-basin(s)?*
Are you aware of areas where forest roads or road ditches intercept sub-surface flow and deliver surface water to streams, rather than back to the forest floor?
☒*No* ☐*Yes, describe:*
As of December 19, 2005;
Hutchinson Creek WAU: 5.4 mi/mi^2
Johnson Sub-basin: 6 mi/mi^2
The percentage of roads carrying water is unknown. This information was taken from the state GIS data layer.

11) *Is the proposal within a significant rain-on-snow (ROS) zone? If not,* ***STOP HERE*** *and go to question B-3-a-13 below. Use the WAU <u>or</u> sub-basin(s) for the ROS percentage questions below.*
☐*No* ☒*Yes, approximate percent of WAU in significant ROS zone.* **41% (5,769 acres)**
This information was taken from the state GIS data layer.
Approximate percent of sub-basin(s): **39% (746 acres)**

12) *If the proposal is within the significant ROS zone, what is the approximate percentage of the WAU <u>or</u> sub-basin(s) within the significant ROS zone (all ownerships) that is (are) rated as hydrologically mature?*
As directed by Procedure 14-004-060, *Assessing Hydrologic Maturity* in the Forestry Handbook, hydrologic maturity will not be managed for in the Hutchinson WAU as a result of a watershed analysis being completed. The Hutchinson Creek Watershed Analysis has assessed hydrologic maturity in the rain-on-snow zone for rain-on-snow and peak flow sensitivity and shows this sub-basin has a low hazard for peak flow impacts; therefore, this sub-basin will not be managed for rain-on-snow events.

It is not known what percentage of other ownerships is hydrologically mature within the rain-on-snow zone.

13) *Is there evidence of changes to channels associated with peak flows in the WAU or sub-basin(s)?*
☐*No* ☒*Yes, describe observations:* **Shallow rapid failures and stream bank erosion have occurred in the WAU and sub-basin during peak flow events. These events have been observed in the field as naturally occurring. See B.3.a.8. & B.1.d.3.**

14) *Based on your answers to questions B-3-a-10 through B-3-a-13 above, describe whether and how this proposal, in combination with other past, current, or reasonably foreseeable proposals in the WAU and sub-basin(s), may contribute to a peak flow impact.*
This proposal is not expected to add greatly to peak flow. The proposal is a regeneration cut; therefore, precipitation that is normally dissipated in the tree canopy will come in contact with the understory brush and forest litter covering the forest floor. As a result, surface run-off may peak sooner during storm events than in neighboring standing timber.

15) *Is there water resource (public, domestic, agricultural, hatchery, etc.), or area of slope instability, downstream or downslope of the proposed activity that could be affected by changes in surface water amounts, quality, or movements as a result of this proposal?*
☒*No* ☐*Yes, possible impacts:* **There is no known water resource use of any tributary or associated waters downstream of this proposal.**

16) *Based on your answers to questions B-3-a-10 through B-3-a-15 above, note any protection measures addressing possible peak flow/flooding impacts.* **The potential for stream flow increases are tempered by design of the proposed sale. Streams having perennial flow have been excluded from the timber sale. Road construction, haul, and harvesting operations will be restricted during unfavorable precipitation conditions further reducing impact to water quality.**

b. Ground *Water*:

1) Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities if known. **Road cross drains may capture shallow surface water and increase ground water recharge directly below culvert outlets. This will increase subsurface saturation in localized areas, but it is not expected to increase or decrease ground water amounts.**

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve. **Small amounts of oil and other lubricants may be spilled/leaked as a result of heavy equipment use. No lubricants will be disposed of on site.**

3) *Is there a water resource use (public, domestic, agricultural, hatchery, etc.), or area of slope instability, downstream or down slope of the proposed activity that could be affected by changes in groundwater amounts, timing, or movements as a result this proposal?*
☒*No* ☐*Yes, describe:* **There is no known water resource use of any tributary or associated waters downstream of this proposal.**

a) *Note protection measures, if any.* **Road locations were selected to minimize ground water interception.**

c. Water Runoff (including storm water):

1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.
Intercepted surface storm water from rain and snow melt, and intercepted ground water from road cut banks will be collected into roadside ditches and discharged onto stable areas of the forest floor, or into natural drainage areas through cross drain culverts and ditches. Crowned and rock surfacing on all roads will reduce sediments from entering natural waters. All discharged water associated with this proposal is tributary to Hutchinson Creek via streams and other typed waters.

2) Could waste materials enter ground or surface waters? If so, generally describe.
None is anticipated other than some logging slash in seasonal streams or accidental, minor local spills of petroleum products may occur on roads or landings.

a) *Note protection measures, if any.* **DNR staff will emphasize contractor compliance to current laws governing hazardous spills and disposal of hazardous wastes. This will conform to timber sale contract regarding installation and maintenance of roadside ditches and cross-drain culverts.**

d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:
(See surface water, ground water, and water runoff sections above, questions B-3-a-1-c, B-3-a-16, B-3-b-3-a, and B-3-c-2-a.)

4. Plants

a. Check or circle types of vegetation found on the site:

☒deciduous tree: ☒alder, ☒maple, ☐aspen, ☐*cottonwood,* ☐*western larch,* ☒*birch,* ☐other:
☒evergreen tree: ☒*Douglas fir,* ☐*grand fir,* ☐*Pacific silver fir,* ☐*ponderosa pine,* ☐*lodgepole pine,* ☒*western hemlock,* ☐*mountain hemlock,* ☐*Englemann spruce,* ☐*Sitka spruce,* ☒*red cedar,* ☐*yellow cedar,* ☐other:
☒shrubs: ☒*huckleberry,* ☒*salmonberry,* ☐*salal,* ☒*other:* **Sword fern, vine maple**
☐grass
☐pasture
☐crop or grain
☒wet soil plants: ☐cattail, ☐buttercup, ☐bullrush, ☐skunk cabbage, ☒*devil's club,* ☐other:
☐water plants: ☐water lily, ☐eelgrass, ☐milfoil, ☐other:
☐other types of vegetation:
☐*plant communities of concern:*

b. What kind and amount of vegetation will be removed or altered? *(See answers to questions A-11-a, A-11-b, B-3-a-1-b and B-3-a-1-c. The following sub-questions merely supplement those answers.)* **Second-growth conifer and hardwoods will be removed from 52.5 net acres. Some immature trees and snags will be left unless needing to be felled for operational or safety reasons. Associated under story vegetation may be disturbed by logging or road building activities within the sale boundary. The current stand will be replaced with a managed Douglas-fir and western redcedar stand (hand planted) along with naturally regenerated western hemlock, red alder, and Bigleaf maple. This managed stand will retain snags, dominant, co-dominant and/or structurally unique trees to increase horizontal and vertical diversity over the landscape.**

1) *Describe the species, age, and structural diversity of the timber types immediately adjacent to the removal area. (See landscape/WAU and adjacency maps on the DNR website at: http://www.dnr.wa.gov under "SEPA Center.")* **The unit is bounded by DNR owned and managed land on all sides with 60 year old conifer stand to the north, west, and south and a 15 year old Douglas-fir stand to the east.**

2) *Retention tree plan:* **Seven percent of trees 12 inches and greater on site, approximately 10 trees per acre, including trees from the dominant crown class and largest diameter class will be left as wildlife and green trees. Retention will be clumped and scattered throughout the harvest area. Concentrations of leave trees are to be left in the southeast portion of the sale as an effort to protect numerous unique large trees with a high concentration of Marbled Murrelet platforms. This area was delineated as less than 5 acres. Snags (unless they need to be felled due to L&I safety considerations) may also be left. Green trees will be retained to preserve structural diversity for wildlife habitat and include structurally unique, windfirm trees from diameter classes averaging between 18-24 inches DBH. Trees from dominant and co-dominant crown classes provide some components of multi-layered canopy.**

c. List threatened or endangered *plant* species known to be on or near the site. **DNR TRAX database indicates that there are no listed threatened or endangered species on or near the proposal area.**

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any: **See 4.b.2. above. Native conifer species of similar site stock planted at approximately 360 trees per acre will be planted throughout the proposal area upon completion of the harvest. Naturally regenerated western hemlock and red alder will also be managed with planted conifers.**

5. Animal

a. Circle or check any birds animals *or unique habitats* which have been observed on or near the site or are known to be on or near the site:

birds: ☐hawk, ☐heron, ☐eagle, ☒songbirds, ☐*pigeon*, ☒other: Raven
mammals: ☒deer, ☒bear, ☐elk, ☐beaver, ☐other:
fish: ☐bass, ☐salmon, ☐trout, ☐herring, ☐shellfish, ☐other:
unique habitats: ☐*talus slopes*, ☐*caves*, ☐*cliffs*, ☐*oak woodlands*, ☐*balds*, ☐*mineral springs*

b. List any threatened or endangered species known to be on or near the site *(include federal- and state-listed species).* **DNR TRAX database indicates that there are no listed threatened or endangered species on or near the proposal area.**

c. Is the site part of a migration route? If so, explain.
☒*Pacific flyway* ☐*Other migration route:* *Explain if any boxes checked:*
All of Washington State is considered part of the Pacific flyway. No impacts are anticipated.

d. Proposed measures to preserve or enhance wildlife, if any: **Wildlife trees (including damaged, defective, dying, and dead trees, all still standing) and RMZ's will serve as habitat for several bird and wildlife species. Douglas-fir and western redcedar will be planted within two years of the timber harvest. Also see 4.b.2.**

1) *Note existing or proposed protection measures, if any, for the complete proposal described in question A-11.* **See above.**

6. Energy and Natural Resources

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc. **Does not apply.**

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe. **Does not apply.**

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any: **None.**

7. Environmental Health

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe. **There is minimal hazard for all of the above due to heavy equipment operations. There is a potential fire hazard if operating in moderate fire weather conditions during the summer until the stand has regenerated and slash has broken down.**

1) Describe special emergency services that might be required. **During harvest operations there may be a short term need for: Department of Ecology approved contract Haz-Mat clean up crews, rural fire district crews, DNR forest fire response crews and rural fire district EMT's and Paramedics for responding to accidents or forest fires.**

2) Proposed measures to reduce or control environmental health hazards, if any: **See: B.3.c.2.a. above and contract enforcement of forest fire protection rules.**

b. Noise

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)? **None.**

2) What types and levels of noise would be created by or associated with the project on a short-term or long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from this site. **There will be localized equipment noise during daylight hours on a short-term basis from logging equipment: yarders, loaders, trucks, and chain saws during road construction, logging, drilling and shooting of rock.**

3) Proposed measures to reduce or control noise impacts, if any: **None.**

8. Land and Shoreline Use

a. What is the current use of the site and adjacent properties? *(Site includes the complete proposal, e.g. rock pits and access roads.)* **Commercial Forestry.**

b. Has the site been used for agriculture? If so, describe. **No.**

c. Describe any structures on the site. **Not applicable.**

d. Will any structures be demolished? If so, what? **Does not apply.**

e. What is the current zoning classification of the site? **Commercial Forestry.**

f. What is the current comprehensive plan designation of the site? **Commercial Forestry.**

g. If applicable, what is the current shoreline master program designation of the site? **Does not apply.**

h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify. **No.**

i. Approximately how many people would reside or work in the completed project? **None.**

j. Approximately how many people would the completed project displace? **None.**

k. Proposed measures to avoid or reduce displacement impacts, if any: **Does not apply.**

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any: **This harvest has been designed to comply with current Whatcom County Comprehensive Plan, Forest Practice Regulations, the DNR Forest Resource Plan, and the DNR-US Fish and Wildlife Service Habitat Conservation Plan.**

9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing. **Does not apply.**

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing. **Does not apply.**

c. Proposed measures to reduce or control housing impacts, if any: **Does not apply.**

10. Aesthetics

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principle exterior building material(s) proposed? **Does not apply.**

b. What views in the immediate vicinity would be altered or obstructed? **None.**

1) Is this proposal visible from a residential area, town, city, developed recreation site, or a scenic vista?
☒*No* ☐*Yes, viewing location:*

2) Is this proposal visible from a major transportation or designated scenic corridor (county road, state or interstate highway, US route, river, or Columbia Gorge SMA)?
☒*No* ☐*Yes, scenic corridor name:*

3) How will this proposal affect any views described in 1) or 2) above? **The proposal will remove timber from approximately 52.5 acres; views in this area will be partially buffered by timber ranging from 15 years old to more than 60 years old. They will be impacted until the planted conifer stand becomes established.**

c. Proposed measures to reduce or control aesthetic impacts, if any: **The proposal is blended by scattered leave trees and several leave tree areas located throughout the sale area. Replanting with Douglas-fir and western redcedar at 360 stems/acre within two years after harvest will also help to reduce aesthetic impacts.**

11. Light and Glare

a. What type of light or glare will the proposal produce? What time of day would it mainly occur? **Does not apply.**

b. Could light or glare from the finished project be a safety hazard or interfere with views? **Does not apply.**

c. What existing off-site sources of light or glare may affect your proposal? **None.**

d. Proposed measures to reduce or control light and glare impacts, if any: **None.**

12. Recreation

a. What designated and informal recreational opportunities are in the immediate vicinity? **Informal recreation in the form of hunting, motorized vehicle riding, hiking, and mushroom, brush, and berry picking.**

b. Would the proposed project displace any existing recreational uses? If so, describe: **No.**

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any: **None.**

13. Historic and Cultural Preservation

a. Are there any places or objects listed on, or proposed for national, state, or local preservation registers known to be on or next to the site? If so, generally describe. **No.**

b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site. **None known.**

c. Proposed measures to reduce or control impacts, if any:
(Include all meetings or consultations with tribes, archaeologists, anthropologists or other authorities.)
DNR representatives have provided information and maps to the Lummi and Nooksack tribes regarding this proposal. Local and national preservation registers and DNR TRAX indicate no known historical or archeological sites on or near the proposal. A follow-up letter and map were sent to the tribes on December 5th, 2005. The Lummi Nation responded with the following statement in a letter dated December 30, 2005.

"The Lummi Nation Tribal Historic Preservation Office (LNTHPO) has coordinated an internal review using records on file with the Lummi Nation's Cultural Resource Management Program. Based on the review, an archaeological assessment is not recommended at this time."

If archeological materials are discovered during the operation, a protection plan will be developed in consultation with the affected tribes.

14. Transportation

a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any. **See A.12.b.**

1) Is it likely that this proposal will contribute to an existing safety, noise, dust, maintenance, or other transportation impact problem(s)? **No.**

b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop? **No.**

c. How many parking spaces would the completed project have? How many would the project eliminate? **None.**

d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private). **Does not apply.**

1) How does this proposal impact the overall transportation system/circulation in the surrounding area, if at all?
Increased truck traffic will occur as a result of log hauling for short periods during the duration of this proposal.

e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe. **No.**

f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur. **None after harvest is completed. During peak harvest activity (30-60 days) there is expected to be 15 log trucks and 3-5 pick up or crew vehicle round trips daily entering and leaving Highway 9.**

g. Proposed measures to reduce or control transportation impacts, if any: **None.**

15. Public Services

a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe. **No.**

b. Proposed measures to reduce or control direct impacts on public services, if any. **None.**

16. Utilities

a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other. **Does not apply.**

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed. **Does not apply.**

C. **SIGNATURE**

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Completed by: _____ Doug Hooks Date: 6-21-06
Title: Unit Manager

Reviewed by: _____ Jeff May Date: 6-19-06
Title: District Manager

Approved by: _____ Candace Johnson Date: 7/25/06
Title: Assistant Region Manager